



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.               | CONFIRMATION NO.       |
|---|-------------|----------------------|-----------------------------------|------------------------|
| 10/603,827  | 06/26/2003  | Kuei Hsiung Chang    | MR1035-1268                       | 4104                   |
| 4586 7590 01/30/2008<br>ROSENBERG, KLEIN & LEE<br>3458 ELLICOTT CENTER DRIVE-SUITE 101<br>ELLICOTT CITY, MD 21043 |             |                      | EXAMINER<br>RAMAKRISHNAIAH, MELUR |                        |
|   |             |                      | ART UNIT<br>2614                  | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>01/30/2008           | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |   |                                     |  |
|------------------------------|---|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/603,827    | <b>Applicant(s)</b><br>CHANG ET AL. |  |
|                              | <b>Examiner</b><br>Melur Ramakrishnaiah | <b>Art Unit</b><br>2614             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9, 13-15, 21, 23 are rejected under 35 U.S.C 102(e) as being anticipated by Adair et al. (US PAT: 7.002,621, filed 8-21-2001, hereinafter Adair).

Regarding claim 1, Adair discloses a cellular phone installation adapted to capture and view images while providing telephone communication service simultaneously, comprising: an analog base band processing unit (reads on 74, fig. 6) for receiving input signal and processing input signal into a baseband signal, a digital baseband processing unit (72, fig. 6) for receiving and processing the baseband signal transmitted from analog baseband processing unit, an audio signal processing unit (76, fig. 6) for receiving and processing an audio signal transmitted from the digital processing unit, an image capture processing module (50, fig. 6) for capturing and processing images and communicating with digital baseband processing unit, a display (30, fig. 6) for receiving and displaying captured image transmitted from digital baseband processing unit and image capture processing module, and an interrupt control unit (reads on 34, fig. 6) handling the transmission between the digital baseband processing unit and display module, and intercepting the transmission

between digital baseband processing unit and display module when the image capture processing module is transmitting data to display module to display the captured image (col. 10, line 16 – col. 11, line 52).

Regarding claim 13, Adair discloses a method of enabling a cellular phone to capture and view images while providing telephone communication service simultaneously, wherein data is transmitted from a digital baseband processing unit (72, fig. 6) to display module (30, fig. 6) while the cellular phone installation conducting telephone communication, and data is transmitted from image capture processing module (50, fig. 6) to display module while the cellular phone installation is capturing images or viewing images, the method comprising: enabling an interrupt control unit (reads on 34, fig. 6) to interrupt the transmission between the digital baseband processing unit and display module, allowing the image capture processing module to transmit images to be displayed to the display module and allowing a telephone communication by the cellular phone installation simultaneously (col. 10, line 16 – col. 11, line 52).

Regarding claims 2-9, 14-15, 21, 23, Adair further teaches the following: image capture processing module (50, fig. 6) includes an image sensor (10, fig. 6) and image sensing microprocessor in (50), the image sensor is used to capture an image and image sensing microprocessor is used to receive data from the image sensor and digital baseband processing unit (72, fig. 1) and transmit received data to the display module (30, fig. 6), wherein image sensing microprocessor is furnished with built in memory (not shown), the digital baseband processing unit (72, fig. 6) is configured to communicate

with the display module (30, fig. 6) via parallel bus (reads on connection between (30 and 72 in fig. 6), and the interrupt control unit (reads on 34, fig. 6) is installed upon parallel bus between digital baseband processing unit and the display module (30, fig. 6), image capture processing module (50, fig. 6) is configured to communicate with the display module via the parallel bus, wherein analog baseband processing unit (74, fig. 6), the audio signal processing unit, the memory unit and digital baseband processing unit (72) are configured to communicate with each other via the parallel bus, the digital baseband processing unit is configured to communicate with the display module (30, fig. 6) via a serial bus (reads on connection between these units shown in fig. 6), the digital baseband processing unit is configured to communicate with analog base band processing unit (74, fig. 1) via the serial bus (reads on connection between these units as shown in fig. 6), serial bus is connected with plurality of peripheral devices (30, 60, fig. 6), the image capture processing module (50) includes an image sensor (10, fig. 6) and image sensing microprocessor in (50, fig. 6), and the images intended to be viewed is transmitted to the display module (30) via image sensing microprocessor, the images intended to be viewed is captured from the image sensor (10, fig. 6), digital baseband processing unit (72) is enabled to transmit images to be displayed to an image sensing microprocessor within image capture processing module when an additional image display service is requested during image capture or viewing operation, thereby drive the image sensing microprocessor to transmit images to be displayed to the display module, the digital baseband processing unit is configured to communicate with the display module (30, fig. 6) module via parallel (col. 10, line 16 – col. 11, line 52).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adair in view of Mendoza et al. (US PAT: 7,084,701, filed 9-17-2002, hereinafter Mendoza).

Adair differs from claims 10-12 in that he does not specifically teach: digital baseband processing unit and analog baseband processing unit are integrable into an integrated circuit, digital baseband processing unit and audio processing unit are integrable into an integrated circuit, digital baseband processing unit, the analog baseband processing unit, and audio processing unit are integrable into an integrated circuit.

However, Mendoza discloses preventing power-on audio output noise in a wireless telephone handset which teaches: integrating (DSP 18, fig. 1) and baseband circuitry (12, fig. 1) into an integrated circuit in wireless telephone (col. 3 lines 40-49).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Adair's system to provide for the following: digital baseband processing unit and analog baseband processing unit are integrable into an integrated circuit, digital baseband processing unit and audio processing unit are integrable into an integrated circuit, digital baseband processing unit, the analog

baseband processing unit, and audio processing unit are integrable into an integrated circuit as this arrangement would provide compact way of implementing different circuit functions as taught by Mendoza, which would contribute to reduction in noise while performing various functions as is well known in the art.

5. Claims 16-20, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adair in view of Sacca (US PAT: 6,788,331, filed 8-1-2000).

Adair differs from claims 16-17, 20, in that although he discloses: the captured images is compressed by the image sensing processor (col. 10 lines 60-65), he does not specifically teach: captured images by the image sensor is stored in a built-in memory of the image sensing microprocessor, images to be displayed is read out from a memory unit by digital baseband processing and transmitted to the image sensing microprocessor.

However, Sacca discloses videofax system with progressive image display which teaches the following: captured images by the image sensor is stored in a built-in memory of the image processor, the images to be displayed is read out from a memory unit by digital baseband processing and transmitted to the image sensing unit for display (abstract; claim 1).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Adair's system to provide for the following: captured images by the image sensor is stored in a built-in memory of the image sensing microprocessor, images to be displayed is read out from a memory unit by digital baseband processing and transmitted to the image sensing microprocessor as this

arrangement would facilitate to store images in memory for further use as taught by Sacca.

Regarding claims 18-19 and 22, Adair further teaches the following: the digital baseband processing unit (72, fig. 6) is enabled to use free intervals between telephone communication periods of the cellular phone installation to display images, image sensing microprocessor in (50, fig. 6) is configured to communicate with digital baseband unit via parallel bus (reads on connection between these units as shown in fig. 6), digital baseband processing unit is configured to communicate with the image microprocessor via serial bus (col. 10, line 16 – col. 11, line 52).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

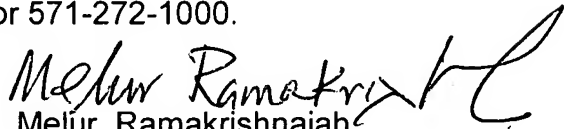
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Application/Control Number:  
10/603,827  
Art Unit: 2614

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Melur Ramakrishnaiah  
Primary Examiner  
Art Unit 2614